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THE SHADOW ECONOMY IN BULGARIA

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Executive Summary

"There cannot be any question that the underground economy is a real phenomenon with important implications that deserve attention and study."

Vito Tanzi

Measuring the Shadow Economy in Bulgaria

GDP accounts are customarily compiled in several alternative ways, each focusing on aggregating transactions in different ways, but all (at least in theory) adding to the same total. Two of the most common aggregations are that focused on expenditures (based on the standard national income accounting identity of C + I + G + X-M) and that based on revenues, or incomes. The two methods should, of course, add to the same number since they measure different sides of the same activity: what money people receive on the one side, and what they do with it on the other.

However, Bulgarian GDP statistics using revenue as the approach give growth rates 2 percentage points lower than the expenditure approach for 1998 and 1999. In other words, data based on what people actually spend show growth rates of 5.4% (1998) and 4.4% (1999), while official figures based on revenues are 3.5% and 2.4%, respectively. This is evidence that there are underreported incomes. It is of interest not only for statistical but also for economic policy purposes to have more detailed information about the discrepancies between official statistics and activities not covered by the official statistical system. It is particularly interesting to know the size and structure of unreported, hidden economic activities, or what has come to be called the "shadow economy." Currently published estimates of the size of the shadow economy vary from 20 to 25% of officially measured GDP, implying that there is a far larger issue than that implied by the differential growth rates cited above.

The objective of this study is to estimate the size of the informal sector, its structure, the incentives for its development and its effect on the economic growth and the competitiveness of the Bulgarian economy. Two different methods were used to get results that are compatible for international comparisons; also, alternative calculations allow a range of estimates which can help to balance the methodological weaknesses of the individual approaches: the modified (indirect) Physical Input Approach based on energy/electricity consumption data, and the (direct) Microeconomic Approach based on firm level survey data.

Five hundred thirty firms are covered by the survey taken from the following sectors: wholesale and retail trade, transport, construction, mechanical and engineering, food and drinks production, chemical industry, textile and knitwear production, tourism and agriculture. These sectors account for 56% of total GDP, and while limited resources necessitated a smaller sample than would be desired under conditions of unlimited funding, some results are quite interesting and indicate the need for further investigation.

The study not only provided estimates of the size of the informal economy but also allowed a basis for analyzing some of the most important aspects of its underlying

structure and the incentives for its growth. Of particular interest are effects of the tax and social insurance system, effects of labor contracting and wage level as well as the effects of administrative costs.

Results of the Modified Physical Input Approach

The basic rationale of Physical Input Approaches to measuring the size of the shadow economy is that energy consumption (electricity, plus other sources) in a given country is proportional to total economic activity and any change in energy consumption which does not correspond to changes in the measured total activity level of the country indicates a change in the size of the shadow economy. These results provide useful indicators of changes in the shadow economy over time, but cannot be used to quantify the absolute size of the shadow economy since this depends on an initial estimate of the size of the shadow economy in the base year. This estimate is necessarily arbitrary to some degree in the absence of specific micro-level data allowing definition of an explicit relationship between energy use and economic activity. Results show that the Bulgarian shadow economy in 1998 declined below the estimated base year (1989) share of 30%. According to our calculations the share of the shadow economy in 1998 GDP in Bulgaria was 22%. The largest shares were observed in 1990 (32.2%) and 1996 (34.4%), declining thereafter.

Results of the Microeconomic Approach

The survey performed provided a description of some of the factors important in promoting shadow economy activities as well as two different direct indicators of its size: one based on tax evasion and one on unreported wages.

The Microeconomic Approach takes into consideration the business environment insofar as it is the result of legislation, government action and institutional gaps and the response of the individual firms to these factors. The general economic environment has a serious impact on economic activities, particularly the tax and social insurance system and employment and wage conditions.

The survey shows that most companies do not use bank credit for initial investments as is the practice in developed market economies. Personal savings comprise 65% of initial investments, bank credit accounts for only 18%, and financial resources available through international programs account for less than 3%.

Almost 70% of the enterprises prefer paying for inputs and other costs in cash. Nineteen percent cite the greater freedom that they have with this form of payment, and 14% of the sample cite low quality of banking services and the higher costs of payments through banks. However it is clear that the high percentage of cash payments facilitates non -reporting of economic activities. This is supported by the observation that the companies (66%) work without invoices. The costs saved by following this practice reach approximately 24% of turnover.

One of the key issues cited by respondents for insufficient business growth in Bulgaria is license and permission procedure. Business attitudes towards licensing and permission requirements are extremely negative. However, only 1.5% of the sample answer that they operate without legal licenses, showing that the risk of sanctions is high. The average cost (state fees plus consultants' and lawyers' pay) of obtaining a license is estimated at 14.5% of companies' monthly turnovers.

In summary, the survey shows a marked preference of firms for irregular practices, which facilitate tax evasion, while the high proportion using licenses indicates that, though many companies operate in the officially reported economy at least to some extent, it is obvious that they avoid reporting some proportion of their activities. The following two sections describe preliminary estimates of the extent to which this actually occurs.

Evidence from tax and social insurance payments

The taxes that are most frequently evaded are the value added tax (VAT) and social security payments. Payroll taxes and the personal income taxes are also near at the top of the list of the most frequently evaded taxes. The survey show that almost 17% of corporate tax is evaded by purchasing fictitious invoices. Total tax evasion can be estimated at 33% of GDP according to sample-based calculations.

Evidence from labor contracting and wages

Between 13% and 15% of those sampled reported hiring people without any contract during the 1997-99 period, as well as during their first accounting year. This practice allows firms to avoid the cost of pension and health care taxes on their officially contracted employees. There is a tendency for growth in the total number of the employed without any contract over the 1997-99 period. In 1999 the total number of employed fell by over 14%, while at the same time the number of employed without any contract increased by 22%. This demonstrates a clear tendency for substitution in employment to avoid contracts. The results show that approximately 3% of employed people (ca. 80 000) are not legally registered. Therefore the actual unemployment rate for 1999 seems to be lower than the National Statistical Institute figures indicate.

The agriculture and the trade sectors show the largest share of workers without a contract, while the service sector shows the smallest (0.5%). The survey shows that the salaries actually paid were higher than reported wages (average 230 BGN) by 10% to 50%. Most firms hide around 34 -35% of their labor costs. The high level of avoidance is a testament to the very high total tax burden in reported wages. Both employers and workers have an interest in avoiding these payments.

Conclusions

This study has shown that though the size of the shadow economy has declined from its peaks in the mid 1990's, it remains a sizable portion of the Bulgarian economy. While in many ways shadow activities have the potential to be dynamic growth sectors, bringing them into official economy would help spread the burden of social programs more broadly. However, it is clear that the current level of taxation and administrative costs is regarded as so high that an attempt to impose these taxes on all would result in the elimination of many shadow activities rather than bringing them into the official economy. Accordingly, one clear lesson is that improved tax collection must be coupled with reduced taxes and deregulation. The size of the shadow economy is also of interest to policy-makers seeking to promote growth. Our results show that a substantial portion of the response to policy initiatives is effectively hidden from the official view. Thus, an ability to correctly estimate the size and structure of the shadow economy will not only provide more accurate statistics but can help improve growth policies as well.

I. INTRODUCTION - DEFINITION OF SHADOW ECONOMY (SE) AND SIGNIFICANCE OF THE STUDY

ESTIMATION OF THE SHADOW ECONOMY IN BULGARIA

It has been reported in the popular press that statisticians assume in their analyses approximately 9 trillion USD of world-wide output is not reported, largely due to the existence of the shadow economy. Friedrich Schneider concludes that shadow activity is nearly 15% of the officially reported GDP. His assumptions are the result of research carried out in 76 developed and emerging economies. This shows that the informal sector can be as important as the official economy, especially when it accompanies the economic development of the transition countries. According to an estimate made by Johnson, Kaufman and Zodia-Lobaton the shadow economy in the transition countries varies between 7 - 43% for the period 1989-1993.

There are many causes for the existence of the shadow economy, but some of the most important can be readily identified. These are high tax burdens, weak banking systems, business regulations and legislation, in-efficiency of government institutions and high unemployment rates. The shadow economy tends to be greater in the developing and transition countries due to more corruption and low incomes.

To date there is no precise definition of the shadow economy. Friedrich Schneider and Dominic Enste define it as a multitude of activities that are not reported by the official statistics. According to Feige the development of the shadow economy is due to regulations and rules imposed on business by the state. De Soto has also contributed to the explanation of the shadow economy phenomenon. He holds that the quality of regulations as well as their enforcement are of great importance for the development of the shadow economy and emphasizes the change in the attitude of the economic agents towards the institutions and the legislation, especially in the transition countries.

For the last three years the development of the Bulgarian economy has been characterized by macroeconomic stability and financial soundness. At the same time the state has extended control over business activities by increasing the number of the legal regulations concerning licensing, permissions and registration. Current licensing and registration procedures impede business activity and create favorable conditions for corruption in state and local administration. Surveys of the Institute for Market Economy show that business regulation and the constantly changing number of regulations are important reasons for firms to prefer the informal sector of the economy.

In theory and practice the most common methods for measuring the shadow economy are the following:

The direct approach is based on a direct inquiry with the firm managers, state and local administration representatives by means of interviews and questionnaires. An advantage of this method is the variety of the information collected about the structure of the shadow economy, and the incentives that lead to it. The outcome of such research depends on the way the questionnaire is formulated and the willingness of the businessmen to give truthful answers. The disadvantage of the approach is the degree of reliability of the information given the illegal nature of many shadow activities. This presents difficulties for estimation of the actual size of the shadow economy. For this reason, the direct approach is not much used in practice.